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ABSTRACT

Prepared by the Alternative Farming Systems Information Center (AFSIC) staff and volunteers, this annotated bibliography provides a list of 85 recently published books pertaining to sustainable agriculture. AFSIC focuses on alternative farming systems (e.g., sustainable, low-input, regenerative, biodynamic, and organic) that maintain agricultural productivity and profitability while protecting natural resources. When combined with AFSIC's earlier publication, "Tracing the Evolution of Organic/Sustainable Agriculture: A Selected and Annotated Bibliography," these titles provide bibliographic coverage of sustainable agriculture literature from 1580 to 1994. Information provided includes title, author, publisher, National Agricultural Library number, and annotation. (LZ)

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Sustainable Agriculture in Print: Current Books

Special Reference Briefs: SRB 95-02
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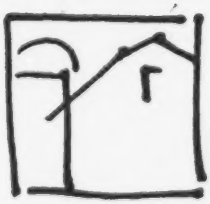
Alternative Farming Systems Information Center



Alternative Farming Systems

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Introduction

Prepared by the Alternative Farming Systems Information Center (AFSIC) Staff and Volunteer, this publication provides a list of recently published books pertaining to sustainable agriculture. Additional titles, going back to 1989, may be found in the 1992, 1993, and 1994 editions of this series (SRB 92-15, SRB 93-04, and SRB 94-06).

When combined with our earlier publication, *Tracing the Evolution of Organic/Sustainable Agriculture: A Selected and Annotated Bibliography*, these titles provide bibliographic coverage of sustainable agriculture literature from 1580 to 1994.

AFSIC is one of eleven Information Centers at the National Agricultural Library (NAL) that provide in-depth coverage of specific subject areas relating to the food and agricultural sciences. AFSIC focuses on alternative farming systems, e.g., sustainable, low-input, regenerative, biodynamic, organic, that maintain agricultural productivity and profitability while protecting natural resources. Support for AFSIC comes to NAL from the USDA's Sustainable Agriculture Research and Education (SARE) program, which is under the jurisdiction of the Cooperative State Research, Education, and Extension Service (CSREES).

For additional reference sources on the many issues and techniques relevant to sustainable agriculture, you may request AFSIC's "List of Information Products". For a copy of this list, or for answers to questions, please contact:

Alternative Farming Systems Information Center
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Beltsville, MD 20705-2351

Telephone: (301) 504-6559
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Jane Potter Gates
Coordinator, AFSIC

Title: *Advances in Sustainable Small Ruminant-Tree Cropping Integrated Systems*
Editors: Sivaraj, S.; P. Agamuthu; T.K. Mukherjee
Publisher: Kuala Lumpur, Malaysia: Institute of Advanced Studies, University of Malaysia, 1993. 243 p.
NAL Number: QL737.U5W675 1992
Annotation: Proceedings of a workshop held Nov. 30 - Dec. 4, 1992, at Kuala Lumpur, that focused on the development of production systems of small ruminants (mainly sheep and goats) and trees (largely coconut, oil palm, rubber) in south and southeast Asia. Considers the relevance of integrated small ruminant-tree crop systems to sustainable agriculture and includes information on forage and grazing, animal productivity, socioeconomics, marketing, and animal health.

Title: *Agricultural Ecology*
Author: Tivy, Joy
Publisher: New York: John Wiley & Sons, 1990. 288 p.
NAL Number: S589.7.T58
Annotation: Analyzes important ecological characteristics that affect the relationships between crops, livestock and the environment, and how man has managed and altered the agro-ecosystem. Examines crops, livestock, climate and soil and the processes of nutrient cycling and energy flows; natural and man-made problems that place severe limitations on agricultural use, with emphasis on paddy rice, irrigation agriculture and modern intensive farming. Assesses environmental impact on both temperate and tropical agriculture.

Title: *Agriculture and Environmental Challenges: Proceedings of the Thirteenth Agricultural Sector Symposium*
Editors: Srivastava, Jitendra P. and Harold Alderman
Publisher: Washington, DC: The World Bank, 1993. 289 p.
NAL Number: S589.75.A365 1993
Annotation: Papers include general views on agriculture and environmentally sustainable development; technical, socioeconomic and policy considerations for sustainable agriculture; population growth and land degradation; conservation tillage for conserving soil, moisture and energy; moisture management in semiarid regions; soil fertility management in the tropics; biological nitrogen fertilization; making integrated pest management work in developing countries; changing farming practices of smallholders in Central America; women in agricultural resource management; poverty and the environment in developing countries.

Inquiries may be made to The World Bank, Office of the Publisher, 1818 H St. NW, Washington, DC 20433.

Title: *Agriculture and the Environment*
Editors: Edwards, C.A. et al
Publisher: New York: Elsevier, 1993. 326 p.
NAL Number: S589.75.I58 1993
Annotation: Papers presented at the International Conference on Agriculture and the Environment, November 10-13, 1993. Reprinted from *Agriculture, Ecosystems and Environment*, vol. 46, nos. 1-4, 1993. Topics include observations on the concept and future of agricultural sustainability; land and energy use in tropical agriculture; tropical forests and global carbon; geologic research in support of sustainable agriculture; land degradation and sustainable agricultural growth in developing countries; global warming; agroecology and integrated farming systems; economic framework for evaluating agricultural policy and sustainability of production systems; managing pesticides and agricultural practices for crop production and water quality protection; environmental and economic aspects of integrated pest management.

Title: *Agriculture and the Environment*
Editor: Jones, John Gareth
Publisher: New York: Ellis Horwood, 1993. 200 p.
NAL Number: TD427.A35A38 1993
Annotation: Another title in the Ellis Horwood series, *Environmental Management, Science and Technology*. A collection of papers and discussions by British farmers, government regulators, environmental managers and academic professionals. Although reflecting British circumstances, many of the issues discussed will be familiar to anyone interested in the frequent conflict between agriculturists and environmentalists. Discusses the farmer's need for agricultural chemicals, preventing water pollution from manufacturing and agrochemicals, agricultural use of sewage sludge, river and groundwater contamination from farming activities (including fish farming), farm waste and nitrate pollution, agricultural requirements for water for irrigation and aquaculture, agricultural benefits and environmental impact from land drainage.

Title: *Agriculture, Environment, and Health: Sustainable Development in the 21st Century*
Editor: Ruttan, Vernon W.
Publisher: Minneapolis: University of Minnesota Press, 1994. 401 p.
NAL Number: S589.75.A39 1994
Annotation: Based on papers presented at the Conference on Agriculture, Environment, and Health, held at Bellagio, Italy, October 15 - 18, 1991. Examines the challenges and significance of global population and environmental changes for achieving sustainable agricultural development. Topics include building national and international agricultural research systems; constraints on institutional innovation; health research in the Third World; capacity to monitor the sources and effects of climatic and environmental changes on agriculture.

Title: *Agronomic, Economic, and Ecological Relationships in Alternative (Organic), Conventional, and Reduced-Till Farming Systems*
Editors: Smolik, James D. et al
Publisher: [Brookings, SD?]: Agricultural Experiment Station, South Dakota State University,

September 1993. Bulletin 718. 57 p.
NAL Number: 100 So82(1) B718
Annotation: Summarizes results of research trials begun in 1984 on several South Dakota farms. Objectives were to measure yields in alternative, conventional, and reduced-till systems; compare whole-farm productivity and economic performance; determine the influence of each type of farming on soil nutrients, temperature, water content, density, residue cover, and snow catch; compare the quantity of plant and microbial feeding nematodes, earthworms, fungi and bacteria; determine weed density and insect damage; consider the relative sustainability of each system in connection with human health, pollution and other environmental factors.

Title: *At Nature's Pace: Farming and the American Dream*
Author: Logsdon, Gene
Publisher: New York: Pantheon Books, 1994. 208 p.
NAL Number: S441.L613 1994
Annotation: A collection of informal essays dealing with the decline of rural society, the failure of agricultural education, traditional farming economies (such as the Amish), sustainable farms as repositories of human skills and common sense; thoughts about the future for farms and rural communities.

Title: *Biotic Diversity in Agroecosystems*
Editors: Paoletti, M.G. and D. Pimentel
Publisher: New York: Elsevier, 1992. 356 p.
NAL Number: S589.7.S93 1990
Annotation: Selected papers from a symposium on agroecology and conservation issues in tropical and temperate regions held at Padova, Italy, Sept. 26-29, 1990. Reprinted from the periodical, *Agriculture, Ecosystems and Environment*, vol. 40, nos. 1-4 (1992). Discusses the inability of sustainable agriculture and forestry to be productive when significant numbers of species in natural biota are lost; agricultural technologies that improve the environment and contribute to increasing biodiversity; relationship between microbial biomass and soil organic matter; using landscaping, legumes, and new crops to increase the diversity of agriculture; monitoring biodiversity.

Title: *Building Bridges: Cooperative Research and Education for Iowa Agriculture: Leopold Center for Sustainable Agriculture 1992 Proceedings*
Publisher: Ames, IA: Leopold Center for Sustainable Agriculture, 1992. 124 p.
NAL Number: S494.5.S86B85 1992
Annotation: Proceedings of the third annual Leopold Center conference held Feb. 18 and 19, 1992, at Ames. Discusses the roles of regulation, financial incentives, penalties, design specifications, performance standards, technical assistance, and education in encouraging sustainable agriculture. Other topics include nitrogen fertilization rates for corn; insecticide rates and corn rootworm larval damage; response of the farm supply and service industry to the trend toward sustainable agriculture; balancing economic and environmental considerations in sustainable farm planning and management decisions; government farm policy; farmers' research needs; sustainable agriculture in developing countries. Additional abstracts, largely based on

Iowa experiences, include the effect of soybean planting date on damage from insect pests; using plant pathogens and natural product chemicals for control of weeds; contour strip-cropping with trees on erodible land; using fall-planted spring oats as a cover crop to reduce soil erosion after soybean harvest; pasture and forage management; genetic diversity in alternative crops; tillage practices and ground water quality.

Title: *Choosing a Sustainable Future: The Report of the National Commission on the Environment*
Author: National Commission on the Environment
Publisher: Washington, DC: Island Press, 1993. 180 p.
NAL Number: HC110.E5N316 1993
Annotation: Cites the global and domestic environmental problems which the U.S. faces, e.g., loss of biodiversity, climate change, ozone depletion, air pollution, waste disposal, encroachment of land development on critical ecosystems and rural landscapes, mismanagement of public lands and resources, deteriorating quality of farmland, contamination and reduction of freshwater supplies, marine pollution and overfishing. Offers recommendations that include: designing technologies for sustainable development and energy use; government tax and incentive policies; promoting environmental awareness; improving living standards in developing countries; moderating population growth; legislative means for preventing pollution; achieving environmental goals and economic growth; ensuring viable habitats for humans and other species.

Title: *Conservation Tillage in Temperate Agrosystems*
Editor: Carter, Martin R.
Publisher: Boca Raton, FL: Lewis Publishers, 1994. 390 p.
NAL Number: S604.C65 1994
Annotation: Commentaries on the development and adaptation of conservation tillage practices in temperate environments from 42 contributors from the U.S., Canada, New Zealand, Australia, and Europe. Examines barriers to adopting conservation tillage, such as soil characteristics, biological factors and climate and proposes strategies for overcoming these impediments. Researchers describe the features and experiences of crop performance with reduced tillage in the U.S. (South, Cornbelt, North Central, Pacific Northwest, southern Great Plains), eastern and prairie Canada, Scandinavia, Great Britain, Germany, France, eastern Europe, New Zealand, and the wheat-sheep area of southeastern Australia.

Title: *CRC Handbook of Alternative Cash Crops*
Author: Duke, James A. and Judith L. duCellier
Publisher: Boca Raton, FL: CRC Press, 1993. 536 p.
NAL Number: SB111.D85 1993
Annotation: Contains profiles on 130 plant species suggested as alternative crops for the tropics. Each plant profile lists culinary, medicinal, energy and other uses, as well as information on chemistry, physical description, ecology, cultivation, harvesting, yields, and pest control factors.

Title: *Criteria for Measuring Sustainability of Livestock Production Systems*
Authors: de Wit, J. et al
Publisher: Zeist, Netherlands: DLO Research Institute for Animal Production "Schoonoord", July 1993. Report B-394. 95 p.
NAL Number: 49.9.UT72R no. B-394
Annotation: Looks at the essential elements of sustainability that include livestock in an agricultural system. Considers food shortages, land scarcity, soil degradation, inefficient use of energy, nutrients, water, deforestation, environmental pollution, and decline in biodiversity. Offers methods for modeling and analyzing criteria to determine the sustainability of livestock in different production systems and situations.

Title: *Crop Improvement for Sustainable Agriculture*
Editors: Callaway, M. Brett and Charles A. Francis
Publisher: Lincoln: University of Nebraska Press, 1993. 261 p.
NAL Number: S494.5.S86O97 v.4
Annotation: Volume 4 in the series, *Our Sustainable Future*. Stresses the importance of plant breeding (including trees for agroforestry) and the need to increase genetic diversity to enhance the efficiency of resource use and to produce plants with higher stress tolerance and resistance to insects, weeds and other pests. Breeding objectives should be built on biological systems that produce crops that are compatible with field environments rather than modifying the environment to fit the requirements of crops. Examines plant breeding objectives, methods and applications and strategies for genetic improvement. Discusses the role of seed companies and biotechnology in contributing to these objectives.

Title: *Crop Protection and Sustainable Agriculture*
Editors: Chadwick, Derek and Joan Marsh
Publisher: Chichester, England: John Wiley & Sons, 1993. 285 p.
NAL Number: SB950.A2C76 1993
Annotation: Ciba Foundation Symposium no. 177, World Food Production by Means of Sustainable Agriculture, held Nov. 30 - Dec. 2, 1992, in Madras, India. Includes discussions on methods for decreasing crop damage in both intensive and extensive agricultural systems. Describes surveillance and monitoring techniques for encouraging natural pest predators, biological controls, developing resistant crop varieties, encouraging and assisting farmers to experiment.

Title: *Crops Residue Management*
Editors: Hatfield, J.L. and B.A. Stewart
Publisher: Boca Raton, FL: Lewis Publishers, 1994. 220 p.
NAL Number: S627.C76C76 1994
Annotation: A title in the series, *Advances in Soil Science*, collected from material presented at a workshop in Kansas City in 1992. Offers information about residue management strategies in the U.S. Pacific Northwest, Midwest, Great Plains, Southeast, and Northeast. Discusses the benefits of cover crops and rotations, and the influence of crop residues on pest management.

Title: *Defining Sustainable Forestry*
Editors: Aplet, Gregory H. et al (Wilderness Society)
Publisher: Washington, DC: Island Press, 1993. 328 p.
NAL Number: SD387.S87D44 1993
Annotation: A collection of papers from a conference held in January 1992, jointly sponsored by the Wilderness Society, American Forests, and World Resources Institute. The conference attempted to create a framework upon which to base future development of forestry. Concluded that there is insufficient understanding of forest ecosystems to accurately define how an ecosystem approach will differ from conventional forest management. Management will require a broader concept of what constitutes a forest ecosystem and must consider the social, economic and political factors that will affect an ecological approach. Topics include exploring the objectives of sustainable forestry; regional approaches to sustainable ecological systems; social and policy considerations.

Title: *Dictionary of Biological Control and Integrated Pest Management*
Authors: Coombs, R.F. and S.G. Lisansky
Publisher: Newbury, Berkshire, England: CPL Press, 1993. 174 p.
NAL Number: SB933.3.C65 1993
Annotation: A reference book of insects, microbes, diseases, genetic and other terms that are pertinent to biological control and management of pests and diseases.

Title: *Environment and Agriculture: Rethinking Development Issues for the 21st Century: Proceedings of a Symposium in Honor of Robert D. Havener held May 5 and 6, 1993, at Winrock International, Morrilton, Arkansas*
Editor: Breth, Steven
Publisher: Morrilton, AR: Winrock International Institute for Agricultural Development, 1994. 265 p.
NAL Number: S401.E58 1994
Annotation: Topics include: managing soil and other conditions for achieving a global sustainable agriculture; water resource and conservation strategies; the effect of forest resources on agricultural productivity and environmental quality; wildlife and other ecosystem factors involved in the development of African rangelands; the key role of genetic conservation and biodiversity for future sustainability. Discussions cover cultural, economic, and social implications of development assistance.

Inquiries may be made to Winrock International, Route 3, Box 376, Morrilton, AR 72110-9537.

Title: *Environmental Indicators for Sustainable Agriculture: Report on a National Workshop, November 28-29, 1991*
Editor: Hamblin, Ann
Publisher: Canberra, Australia: Bureau of Rural Resources et al, 1992. 96 p.
NAL Number: S478.A1E58 1992
Annotation: Proceedings of a workshop that defined key indicators for measuring and monitoring trends in sustainability in Australia. These indicators were separated into three broad

categories: (1) management, including finance, profitability, planning and operations; (2) production, involving productivity of crops and animals relative to water, nutrients, labor, and other variables; (3) condition of the resource base, consisting of soil fertility, physical condition, biomass, and water quality. Provides an overview of the diverse agro-ecological regions of Australia and discusses methods and criteria for evaluating the sustainability of Australian agriculture.

Title: *Environmental Soil Science*
Author: Tan, Kim H.
Publisher: New York: Marcel Dekker, 1994. 304 p.
NAL Number: S591.T35 1994
Annotation: Designed as both a reference source for agronomists, environmentalists, foresters and others, and a text for students in soil chemistry, forest resources, and ecology. Examines how the solid, liquid and gas constituents of soil interact with the environment and the role of environmental factors in the formation of different types of soil. Discusses the weathering of primary minerals and formation of clay minerals. Examines organic elements, including acids, lipids, proteins and carbohydrates; soil biomass; beneficial effects of microorganisms in decomposition, mineralization, carbon and nitrogen cycles; soil aeration; classification of soil water; electrochemical properties of soil solids. Considers the effects of clearing new land, plantation agriculture, agroforestry, organic farming and intensifying soil productivity of crops. Looks at soilless agriculture, such as aquaculture and hydroponics; the impact of agricultural and industrial waste, acid rain, the greenhouse effect, and other types of pollution.

Title: *Ethics, Public Policy, and Agriculture*
Authors: Thompson, Paul B.; Robert J. Matthews; Eileen O. van Ravenswaay
Publisher: New York: Macmillan Publishing Co., 1994. 268 p.
NAL Number: BJ52.5.T54 1994
Annotation: Discusses the ethical issues involved in several aspects of agriculture and public policy, such as resource management, food production, distribution and consumption. Examines criteria for analyzing social ethics and public policy; factors involved in determining food safety policy (reviews the Alar debate); goals of environmental policy; farm animal welfare; foreign agricultural assistance; views of sustainable agriculture (including a critique of the ideas of Wes Jackson and Miguel Altieri); agrarian traditionalism and the future of the family farm.

Title: *Farming and Clean Water: A Community Action Guide*
Publisher: [Minnesota]: The Minnesota Project/the Midwest Consortium on Groundwater and Farm Chemicals, March 1993. 110 p.
NAL Number: TD427.A35F37 1993
Annotation: Explains the principles of sustainable agriculture and how these contribute to the protection of groundwater. Defines a Special Protection Area (SPA) as a region with groundwater or surface water pollution from farming and strategies for communities, associations, and individuals to pursue in combating the problem. Offers ideas for community decision making and how to effect change; what information and research is required, such as analyzing the hydrogeology of the area, water quality, pollution sources, types of farms in the

area, public agencies and non-government organizations that are involved in groundwater protection. Suggests educational, regulatory, and motivational approaches. Contains a directory of organizations that may be contacted for information and government agencies in each state responsible for groundwater.

Title: *The Fourth No-Till Q & A Book*
Editor: Lessiter, Frank
Publisher: Brookfield, WI: Lessiter Publications, 1993. 48 p.
NAL Number: S604.N675 1993
Annotation: An updated edition to this series. Includes 184 questions asked of experts at the National No-Tillage Conference about planting, drilling, fertilization, weeds, insects, cover crops, managing residue, corn and soybeans.

Title: *From Land to Mouth: Understanding the Food System (2nd ed.)*
Author: Kneen, Brewster
Publisher: Toronto: NC Press, 1993. 223 p.
NAL Number: HD9000.5.K526 1993
Annotation: Originally published in 1989, this revised and expanded edition describes how the global food system functions and how it might function. Includes everything from farm suppliers to retail outlets, from farmer to consumer, and the integration of production, processing and distribution. Looks at the cultural aspects and logic of a food system that provides abundance for the wealthy while producing hunger and ecological disaster. Proposes the creation of local sustainable food systems founded on justice and a sense of community.

Title: *From the Good Earth: A Celebration of Growing Food Around the World*
Author: Ableman, Michael
Publisher: New York: Harry N. Abrams, 1993. 168 p.
NAL Number: SB175.A25 1993
Annotation: With a foreword by Wes Jackson. A wide ranging photographic essay, with accompanying text, of contrasting farm operations. Includes chemical-free and other ventures in California, peasant plots and indigenous crops in Peru; intercropping and traditional methods in China; farming for export and survival in Africa; Hopi cultivation in the Arizona desert; Sicilian traditional farming. Looks at environmental and human health and pesticides; urban gardening; how food is marketed locally around the world. Considerable attention is given to sustainable agriculture.

Title: *Future Harvest: Pesticide-Free Farming*
Author: Bender, Jim
Publisher: Lincoln: University of Nebraska Press, 1994. 159 p.
NAL Number: S494.5.S86O97 v.5
Annotation: Volume 5 in the series, *Our Sustainable Future*. The author shares his experiences and views gained from a transition to farming without pesticides and synthetic fertilizers on a Nebraska farm. Explores why pesticide-free farming is a necessary objective and the problems involved in converting from conventional methods. Compares alternative and conventional

agriculture and deals with the common arguments used against alternative or organic systems. Examines the role of livestock in alternative agriculture.

Title: *The Global Environment: Securing a Sustainable Future*
Authors: ReVelle, Penelope and Charles ReVelle
Publisher: Boston: Jones and Bartlett Publishers, 1992. 480 p.
NAL Number: TD174.R52 1992
Annotation: Designed as a college text for environmental studies. Draws from current ideas and principles on which a sustainable society might be based. Provides an overview of the diverse types of ecosystems. Discusses threats to land and wildlife resources, such as erosion, desertification, and accelerating loss of biodiversity. Attention is given to pesticides, food production and human health; the need for alternative agricultural schemes and setting goals for agriculture; efficient use of conventional and renewable energy; disposing and recycling of wastes; the effects of air pollution, acid rain, ozone depletion, global climate change; causes and consequences of water pollution; and the necessary components of a sustainable society. Uses familiar topics to illustrate various aspects, such as the spotted owl, old growth forests, the Alar experience, locust and screw worm plagues in Africa, agroforestry and polycropping.

Title: *Gray World, Green Heart: Technology, Nature, and the Sustainable Landscape*
Author: Thayer, Robert L. Jr.
Publisher: New York: John Wiley & Sons, 1994. 352 p.
NAL Number: GE140.T48 1994
Annotation: A title in the *Wiley Series in Sustainable Design*. A thoughtful analysis of the adversarial relationship between nature and technology, and the difficulty Americans have in comprehending this relationship because of cultural and lifestyle attitudes. Deals with the dilemma of competing societal interests. Discusses the characteristics of environmental quality and the changing views Americans have of the environment.

Title: *Growing Our Future: Food Security and the Environment*
Editors: Smith, Katie and Tetsunao Yamamori
Publisher: West Hartford, CT: Kumarian Press, 1992. 172 p.
NAL Number: HD9000.5.G78 1992
Annotation: Papers presented at a symposium hosted by Food for the Hungry and Arizona State University at Tempe in November 1991. Focused on integrating sustainable development, protecting the environment and preventing hunger. Topics include agrarian reform and the environment in Latin America; food security and environmental degradation in Africa; the connection between hunger and environmental problems; efforts to transform dependent agricultural economies into more self-reliant, ecologically sound systems. Discusses case studies in Mali, Ethiopia, Bolivia, and Guatemala.

Title: *Heifer Project International Integrated Smallholder Dairy Farming Manual*
Author: Kinsey, Erwin
Publisher: Little Rock, AR: Heifer Project International, 1993. 97 p.
NAL Number: (being processed)

Annotation: Although designed primarily for smallholder dairy farmers in east Africa, the practices described may be applicable to other tropical and subtropical areas. The emphasis is on raising cattle, but much of the information can be used for other dairy animals such as goats, camels, buffaloes, and yaks. Considers planting, harvesting and using fodder, breeding, housing, maximizing milk production, and health problems. Discusses the interrelationship between sustainable farming and raising dairy cattle and common mistakes often made that interfere with a sustainable relationship between land and livestock.

Inquiries may be made to Heifer Project International, P.O. Box 808, Little Rock, AR 72203.

Title: *The Humane Consumer and Producer Guide: Buying and Producing Farm Animal Products for a Humane Sustainable Agriculture*
Editors: Gips, Terry et al
Publisher: Washington, DC: The Humane Sustainable Agriculture Project of the International Alliance for Sustainable Agriculture; The Humane Society of the United States, 1993. 368 p.
NAL Number: S494.5.S86H86
Annotation: Defines principles and practices of humane animal husbandry and serves as a source of information for those interested in following these practices and developing markets. Includes a directory of ranches and farms producing animal products using humane and ecologically sound animal husbandry. Contains listings of processors, wholesalers and retailers who market products from humanely treated animals; researchers, consultants, educators, associations and others involved in humane sustainable agriculture.

Title: *Integrated Farming Systems Research Methods 1993*
Publisher: Guelph, Ontario: University of Guelph, Crop Science Dept., 1993. 69 p.
NAL Number: S494.5.A65I58 1993
Annotation: Papers and abstracts presented at the 12th annual Organic Agriculture Conference and Academic Symposium at the University of Guelph on January 29, 1993. Topics include defining and monitoring characteristics of a sustainable agroecosystem and key factors that affect agroecosystem sustainability; research in integrated farming systems in the Netherlands; comparing management strategies on Wisconsin dairy farms and in Mexico; Ontario farmer participation in developing agroecological farm plans; effect of class position on attitudes of Ontario farmers toward sustainable agriculture policies; weed control in corn, soybean and white bean.

Title: *An Introduction to Agroforestry*
Author: Nair, P.K. Ramachandran
Publisher: Boston: Kluwer Academic Publishers, 1993. 499 p.
NAL Number: S494.5.A45N3543 1993
Annotation: A college-level textbook that outlines the history and concepts of agroforestry, including community, farm and social forestry. Describes the elements and practices in tropical agroforestry systems; types of multi-purpose trees and shrubs that are commonly used; the effects (both beneficial and adverse) of trees on soils; nutrient cycling, soil organic matter, and nitrogen fixation; effect of agroforestry on wind and water erosion; on-farm research and field

experiments; sociocultural and economic considerations. Although most of the experiences and characteristics pertain to the tropics, there is a section devoted to temperate zone agroforestry.

Title: *Lab to Land: Biotechnology for Sustainable Agriculture in Asia*
Editors: Ferchak, John and Sharmila Ribeiro
Publisher: Washington, DC: Appropriate Technology International, 1992. 187 p.
NAL Number: S494.5.B563L33 1992
Annotation: Proceedings of the first Asia Network for Small-Scale Agricultural Biotechnologies (ANSAB) workshop held March 29-April 1, 1992, in Kathmandu, Nepal. Presentations include individual profiles of small-scale agricultural technologies, suitable for application and commercialization, for Bangladesh, mainland China, India, Indonesia, Nepal, Philippines, Sri Lanka, Thailand, and Vietnam. Discusses case studies related to the role of small farmers, national government organizations, networks, the private sector in developing agricultural biotechnology, technology transfer, and commercialization.

Title: *Land is Life: Land Reform and Sustainable Agriculture*
Editors: Dudley, Nigel; John Madeley; Sue Stolton
Publisher: London: Intermediate Technology Publications, 1992. 155 p.
NAL Number: HD1332.L36 1992
Annotation: Includes papers presented at a conference, "Soil for Life: Promoting Sustainable Land Use", held in Berlin in November 1991. Stresses the important link between land reform in the Third World and an increase in sustainable food production and agricultural development. Relates experiences with land reform and resettlement in Brazil, Colombia, Dominican Republic, Zimbabwe, Namibia, India, Philippines, Thailand, and Indonesia.

Title: *Let Farmers Judge: Experiences in Assessing the Sustainability of Agriculture*
Editors: Hiemstra, Wim; Coen Reijntjes; Erik van der Werf
Publisher: London: Intermediate Technology Publications, 1992. 208 p.
NAL Number: S494.5.S86L47 1992
Annotation: Another in a series of publications prepared by the Information Centre of Low-External-Input and Sustainable Agriculture (ILEIA) in the Netherlands. A collection of reports by researchers and field-workers concerning innovations in smallholder systems in marginal or high-risk farming areas. Attention is given to assessing farmers' evaluation of new technologies; small farm economics; indigenous soil and crop management; organic coffee growing; rice cropping. Case studies drawn from Africa, Latin America, India, and Philippines.

Title: *Livestock for a Small Earth: The Role of Animals in a Just and Sustainable World*
Editor: Aaker, Jerry (Heifer Project International)
Publisher: Washington, DC: Seven Locks Press, 1994. 111 p.
NAL Number: SF41.L58 1994
Annotation: Includes contributions by James DeVries, Dan Gudahl, Jim Hoey, Robert K. Pelant and Jennifer Shumaker that focus on humane and economically and ecologically sound livestock development programs based on the principles of sustainable agriculture and 50 years of

experience in creating and maintaining successful animal-based projects around the world. Contains an extensive bibliography that includes sources on the environment, rural development, livestock, and manuals on agroforestry, animal health, aquaculture, beekeeping, beef and dairy cattle, goats, sheep, poultry, swine, and rabbits.

Title: *Living with the Land: Communities Restoring the Earth*
Editors: Meyer, Christine and Faith Moosang
Publisher: Philadelphia: New Society Publishers, 1992. 131 p.
NAL Number: HD75.6.L58 1992
Annotation: The fourth volume in *The New Catalyst* bioregional series. Accounts of diverse rural and urban communities and their ecologically and economically sustainable methods for using land and water. Includes reports on the Ikalahan people in the Philippines, the Ulkatcho and Kluskus of British Columbia, logging with horses in British Columbia, forest preservation in Ecuador, hill tribe projects in Thailand, seed preservation in Indonesia and British Columbia, campesino programs in Nicaragua, village farming in Nigeria, developing urban ecology in Brazil, Mexico, and British Columbia.

Title: *Mainline Farming for Century 21*
Authors: Skow, Dan and Charles Walters Jr.
Publisher: Kansas City, MO: Acres U.S.A., 1991. 204 p.
NAL Number: S591.S57 1991
Annotation: Deals with the molecular, physical and chemical components of soil and what can be done to promote soil nutrition. Stresses the importance of carbon for water retention and prompt seed sprouting; greater density of soil nutrients provides greater yields; shorter growing time enhances product quality; higher sugar and mineral content in plants and trees lowers the freezing point; phosphate controls the sugar content, which affects the mineral content; nitrogen is the major electrolyte in soil; foliar spray fertilization is the most efficient and economical way to apply micronutrients; fertility management is essential to insect control. Describes instruments available for testing soil elements and how to remedy deficiencies.

Title: *Making Development Sustainable: Redefining Institutions, Policy, and Economics*
Editor: Holmberg, Johan
Publisher: Washington, DC: Island Press, 1992. 362 p.
NAL Number: HD75.6.M35 1992
Annotation: Uses the term "primary environmental care" to include several approaches to grass roots sustainability that involve economic, social, and environmental systems. Topics include organizing people and institutions for change; natural resource management and economic policy; agroecology of low-external input systems; future characteristics of urban areas; defining sustainable forests; sustainable energy use in developing countries; financing sustainable development; local resource management and the future of Africa's drylands.

Title: *Making Haste Slowly: Strengthening Local Environmental Management in Agricultural Development*
Editors: Savenije, H. and A. Huijsman

Publisher: Amsterdam, Netherlands: Royal Tropical Institute, 1991. 239 p.
NAL Number: S482.M35 1991
Annotation: Volume 2 in the series, *Development Oriented Research in Agriculture*. Papers presented at a workshop held on Nov. 12 and 13, 1990, in Amsterdam. Deals with environmental management in relation to small scale agriculture involving resource poor farmers in marginal areas. Considers approaches that use modern institutions while including traditional structures and concepts that are familiar and supported by the local population. Includes case studies from Burkina Faso, Mali, Kenya, Peru, Indonesia, and Sri Lanka.

Title: *Making Sustainability Operational: Fourth Mexico/U.S. Symposium*
Publisher: Ft. Collins, CO: Rocky Mountain Forest and Range Experiment Station, USDA Forest Service, December 1993. General technical report RM-240. 232 p.
NAL Number: aSD11.A42 RM-240
Annotation: Proceedings of a symposium held at Santa Fe, NM, April 19-23, 1993, to discuss the economic, social, and ecological aspects of sustainable integrated management of forests and ecosystems. Papers are in English or Spanish. Topics include defining the primary factors for evaluating natural resource sustainability; using the holistic resource management model that incorporates human values, economic and ecological considerations in determining land use; using municipal sewage sludge to rehabilitate degraded southwestern rangelands; determining the effects of pine tree diseases and insects on the sustainability of forests in the southwestern U.S. and northern Mexico; analyzing the effect of global change on regional environments; managing encinal woodlands; sustainability and sustained yield in National Forests; land grant community associations in New Mexico; creating a decision support system for managing the San Juan Tetla experimental forest in Mexico; balancing economics and ecology in rural economic development; monitoring forest and rangeland ecosystems to achieve sustainability; migratory birds and forest sustainability in Mexico.

Title: *Managing Agricultural Residues*
Editor: Unger, Paul W.
Publisher: Boca Raton, FL: Lewis Publishers, 1994. 448 p.
NAL Number: S504.M28 1994
Annotation: Reviews information on the value of residues for soil and water conservation, fuel, and livestock feed. Topics include the influence of residues on controlling wind and water erosion; nutrient cycling; soil chemical and physical properties; soil micro- and macro-organisms; weed, insect, and disease control.

Title: *Ministerial Conference on the Protection of Forests in Europe, 16-17 June 1993 in Helsinki: Sound Forestry - Sustainable Development: Conference Proceedings*
Publisher: Helsinki, Finland: Ministry of Agriculture and Forestry, 1993. 2 vols., 186 p., 203 p.
NAL Number: SD414.E85M56 1993
Annotation: Responses of European countries to resolutions prepared at the first conference at Strasbourg in 1990. Each national report briefly describes measures that country has taken to assist in forming a European network of permanent sample plots for monitoring forest

ecosystems, conserving forest genetic resources, adapting management of mountain forests to new environmental conditions, expanding a research network on tree physiology and forest ecosystems, and creating a data bank on forest fires. There is a general overview of progress on these several resolutions.

Title: *The Natural Magic of Mulch: Organic Gardening Australian Style*
Author: Roads, Michael J.
Publisher: South Yarra, Vic., Australia: 1993. 149 p.
NAL Number: S661.5.R63 1993
Annotation: The second printing of this book, originally published in 1989 by another publisher. A lighthearted approach to the basics of organic gardening gained from experiences in Australia. Stresses the vital role of mulch in feeding the soil and providing a protective cover. Offers several sources for obtaining mulch, including hay, seaweed, fruit and vegetable scraps, paper waste, pine needles, hair, sugar cane residue, feathers, leaves, grass clippings, sawdust, woodchips, and animal manure. Examines the necessary elements of healthy soil and how to make and use natural fertilizers. Describes methods for growing fruits, vegetables, fruit and ornamental trees, shrubs, and lawns. Provides techniques for pest control using herbs and organic sprays.

Title: *A New Vision for Agriculture in the 1990s*
Author: Clancy, Kate
Publisher: St. Paul: Minnesota Food Association, 1991. 9 p.
NAL Number: HD9000.5.C58 1991
Annotation: The keynote address delivered at the annual meeting of the Minnesota Food Association in St. Paul on April 19, 1991. Briefly outlines problems in nutrition and agriculture, including biotechnology, the food processing industry, the growth of imitation foods, hunger and poverty.

Inquiries may be made to Minnesota Food Association, 2395 University Ave., Room 309, St. Paul, MN 55114.

Title: *Non-governmental Organizations and the State in Africa: Rethinking Roles in Sustainable Agricultural Development*
Editors: Wellard, Kate and James G. Copestake
Publisher: New York: Routledge, 1993. 331 p.
NAL Number: S494.5.I5N65 1993
Annotation: This and the following two titles are part of the *Non-governmental Organizations* series. Focuses on the performance and capabilities of church and private organizations in promoting technological innovations, research, environmental awareness, and strengthening grass roots organization in Zimbabwe, Kenya, Zambia, Ghana, Gambia, and Senegal.

Title: *Non-governmental Organizations and the State in Asia: Rethinking Roles in Sustainable Agricultural Development*
Editors: Farrington, John et al

Publisher: New York: Routledge, 1993. 366 p.
NAL Number: HN655.2.C6N66 1993
Annotation: Examines the activities of private and church organizations in developing sustainable technology and management practices among small-scale, low-income farmers. Includes cooperative ventures with local government. Focuses on Bangladesh, India, Nepal, Philippines, Indonesia, and Thailand.

Title: *Non-governmental Organizations and the State in Latin America: Rethinking Roles in Sustainable Agricultural Development*
Editors: Bebbington, Anthony et al
Publisher: New York: Routledge, 1993. 290 p.
NAL Number: HD1790.5.Z8B43 1993
Annotation: Explores the activities and capabilities of private organizations in promoting technological innovation, sustainable practices, grass roots organization among small farmers, and cooperative relations with governments in Central and South America.

Title: *The Organic Chef: Canadian Chefs Harvest the Best of Farm and Field*
Author: Herman, Jane
Publisher: Toronto: Doubleday Canada, 1993. 242 p.
NAL Number: TX741.H47 1993
Annotation: Of special interest to those using organic cookery or organic producers who may find organic recipes valuable as a marketing tool. A collection of over 60 recipes using organic products. Includes soups, salads, breads, seafood, poultry, meat, vegetables, and desserts.

Title: *Organic Farming*
Author: Lampkin, Nicolas
Publisher: Ipswich, England: Farming Press, 1990. 701 p.
NAL Number: S605.5.L35 1990
Annotation: Covers the principles and practices of organic farming that include soil management; crop nutrition; rotation systems; managing grassland, fodder and horticulture crops, cereals, vegetables, and legumes; using manures and organic residues; weed, pest and disease control; animal husbandry (including dairy and beef cattle, sheep, pigs, poultry, bees); marketing and processing organic products; financial and economic aspects of organic operations; procedures and problems in converting from conventional to organic farming. Outlines British organic standards. Lists the scientific and popular names of plants, pests, and diseases.

Distributed in North America by Diamond Farm Enterprises, Box 537, Alexandria Bay, NY 13607.

Title: *The Organic Gardener's Home Reference: A Plant-by-Plant Guide to Growing Fresh, Healthy Food*
Author: Denckla, Tanya
Publisher: Pownal, VT: Storey Communications, 1994. 273 p.

NAL Number: SB324.3.D46 1994
Annotation: Covers the essential aspects of creating a self-sustaining organic garden. Includes tips on planning, preparing sites, choosing rootstock, recognizing pests and diseases and methods for control. Provides profiles on popular vegetables, fruits, nuts, and herbs that advise when and how to grow, harvest, and store. Contains a directory of seed companies, nurseries, equipment and pest control suppliers, state gardening associations, and a bibliography of helpful periodicals and books.

Title: *Pest Control and Sustainable Agriculture*
Editors: Corey, S.A.; D.J. Dall; W.M. Milne
Publisher: East Melbourne, Australia: CSIRO, 1993. 514 p.
NAL Number: S494.5.S86A97 1993
Annotation: Proceedings of the Australian Applied Entomological Research Conference held at Canberra, April 28 - May 1, 1992, to review developments in controlling insect pests and the environmental impact of current management practices. General topics include integrated pest management; forecasting and modelling; crop loss assessment; biological, chemical, microbial and cultural controls; host plant resistance; pheromones; pollination biology; applied nematology.

Title: *Planning for a Sustainable Environment: A Report by the Town and Country Planning Association*
Editor: Blowers, Andrew
Publisher: London: Earthscan Publications, 1993. 239 p.
NAL Number: HC79.E5P53 1993
Annotation: Perspectives on planning policy and sustainable development in Britain. Focus is on urban or mixed urban-rural areas. Intended as a guide for planners, environmentalists, and policy makers. Includes discussions on land use, ecosystems and natural resources (including agriculture), energy options, transportation and the environment, dealing with pollution and waste, defining a sustainable economy.

Title: *Plants, Genes, and Agriculture*
Authors: Chrispeels, Maarten J. and David E. Sadava
Publisher: Boston: Jones and Bartlett Publishers, 1994. 478 p.
NAL Number: SB123.57.C48 1994
Annotation: Examines how plant genes and genetic engineering are involved in agriculture around the world. Promotes three central themes: (1) modern farming is a scientific enterprise, manipulating the relationship between plants and their environments; (2) scientific manipulation of plants can assist in increasing crop production; (3) agriculture must be conducted in a sustainable manner to ensure food production for the future. Discusses the growth of population and food demand and how farming systems have developed to keep pace; elements that affect agricultural productivity, such as availability of arable land, social and cultural factors, farming practices, climatic and ecological changes; effects of agricultural techniques on ecosystems and concern about the sustainability of intensive farming. Presents an overview of plant biotechnology and its impact on plant breeding; plants and human nutrition; the role of energy in plant growth and crop production; elements that contribute to healthy soil; the molecular basis

of plant breeding and genetic engineering. Suggests that plant genetic stock around the world has narrowed as a result of modern breeding and the Green Revolution. Looks at pests and strategies for control, including plant chemicals, biological methods, integrated pest management, and genetically enhanced plants. Deals with safety and quality of genetically engineered food.

Title: *Poultry Feed from Waste: Processing and Use*
Authors: El Boushy, A.R.Y. and A.F.B. van der Poel
Publisher: New York: Chapman & Hall, 1994. 438 p.
NAL Number: SF494.E38 1994
Annotation: Provides technical information on processing waste material into nutritious, inexpensive alternative feed for poultry. Types of waste include feathers, egg shells and other hatchery by-products; hide and tanning material; fruit, vegetable, and brewers' residues; municipal refuse.

Title: *Practical Organic Gardening*
Author: Palliser, David
Publisher: Ramsbury, Marlborough, Wiltshire, England: The Crowood Press, 1992. 64 p.
NAL Number: SB453.5.P35 1992
Annotation: A short illustrated guide to creating a viable organic garden. Discusses how to develop and improve proper soil; how to protect plants from pests, diseases, air pollution and adverse weather; choosing rootstock and seeds; how to sow and plant. Offers methods for tending fruit (apples, cherries, currants, blackberries, raspberries, strawberries, gooseberries) and vegetables.

Title: *Proceedings: Sustainable Soil Management Symposium*
Publisher: Davis, CA: University of California, Sustainable Agriculture Research & Education Program, 1993. 90 p.
NAL Number: S622.2.S97 1993
Annotation: Proceedings of a symposium held at Davis on April 22, 1993. Papers, farmer presentations, and related journal articles include: a discussion of the beneficial aspects of soil microorganisms for contributing nutrients to crops; practices that ensure the viability of the link between organic matter and a vital microbial biomass; the important role of earthworms in healthy soil and how to enhance the beneficial effects; types of organic fertilizers and soil amendments, including animal manure, sewage sludge, crop residues, blood, bone, meat and feather meal, granulated minerals, lawn trimmings and waste paper; how to produce different types of compost and how to determine which type to use; managing soil fertility for California oranges, olives, walnuts, prunes and grapes; a comparative study of organic and conventional tomato production systems in California; soil fertility management at the agroecology program farm of the University of California, Santa Cruz; comparing soil quality and financial performance of New Zealand biodynamic and conventional farms.

Title: *Proceedings of a Conference on Participatory On-farm Research and Education for Agricultural Sustainability*
Editor: Clement, Lennis L.
Publisher: Urbana, IL: Illinois Agricultural Experiment Station, University of Illinois College of Agriculture, 1992. 249 p.
NAL Number: S494.5.S86C69 1992
Annotation: Proceedings of a conference held July 30 - Aug. 1, 1992, in Champaign, IL. Papers and case study reports on farmer participation in various aspects of research in sustainable agriculture; using cooperative extension, fairs, networking, and other forms of farmer education; designing on-farm research and demonstration trials; establishing coöperation between farmers and private and government institutions.

Available for purchase from Illinois Agricultural Experiment Station, University of Illinois College of Agriculture, 211 Mumford Hall, 1301 W. Gregory Dr., Urbana, IL 61801.

Title: *The Real Dirt: Farmers Tell About Organic and Low-Input Practices in the Northeast*
Editors: Smith, Miranda et al
Publisher: Burlington, VT: Northeast Region Sustainable Agriculture Research and Education (SARE) program and the Northeast Organic Farming Association, 1994. 264 p.
NAL Number: S605.5.R43 1994
Annotation: A collection of practices and techniques used by organic and low-input farmers during 1989-1991. Topics include rotations, cover crops, green manures, compost, and other elements of soil management; pest, disease and weed management; vegetable, herb, fruit, and greenhouse production; livestock and dairy management; organic certification; economics and marketing; making the transition from a conventional to a low-input or organic operation. Contains a directory of Northeast organic growers associations, certification programs, cooperative extension and IPM offices.

Copies may be obtained from Northeast Region SARE/ACE programs, Hills Bldg., University of Vermont, Burlington, VT 05405.

Title: *Reconciling Sustainability with Productivity Growth: Opportunities for Collaboration Among U.S. Universities, CGIAR Centers, and the NARS*
Publisher: Gainesville: University of Florida, Office of International Studies and Programs, 1993. 34 p.
NAL Number: S494.5.S86R43 1993
Annotation: A summary report of a workshop co-sponsored by the University of Florida and Cornell University at Gainsville, May 19-21, 1993. Considers how to meet the needs of a growing population without increasing environmental degradation, the conflict between sustainability and the pressure for higher levels of food production. Focuses on the advantages of and mechanisms for strengthening university ties with the Consultative Group on International Agricultural Research (CGIAR) and the National Agricultural Research Services (NARS). Proposes a research agenda that involves genetic development and conservation, integrated pest management, agroecological environmental variations, resource management, and

socioeconomic issues.

Title: *Reluctant Partners?: Non-governmental Organizations, the State and Sustainable Agricultural Development*
Authors: Farrington, John et al
Publisher: New York: Routledge, 1993. 222 p.
NAL Number: HD1417.F34 1993
Annotation: Another title in the *Non-governmental Organizations* series. An assessment of the potential of private and church organizations in assisting the Third World to achieve technological innovation and sustainable development. Examines collaborative efforts with national and local governments.

Title: *Restoration Forestry: An International Guide to Sustainable Forestry Practices*
Editor: Pilarski, Michael
Publisher: Durango, CO: Kivaki Press, 1994. 525 p.
NAL Number: SD387.S87R47 1994
Annotation: an extensive collection of essays on sustainable forestry and reports on research, such as developing wood alternatives and forest ecosystem restoration projects in Asia and North and South America. Contains directories of professional, governmental, grass roots, and international forestry organizations; companies that sell sustainably produced wood products; sources of tree seed; journals, newsletters, and other periodicals; films and videos; and a bibliography of 800 books on forestry and allied topics.

Title: *Return to the Good Earth: Damaging Effects of Modern Agriculture and the Case for Ecological Farming*
Publisher: Penang, Malaysia: The Third World Network, 1990. 570 p.
NAL Number: S589.7.R47 1990
Annotation: A collection of articles concerning the damage caused by modern agriculture and the superiority of ecologically sound, chemical-free farming. Topics include the dangers of pesticide overuse; the green revolution and its disastrous effects on the Third World; the industrial world's attempts to control genetic resources of the Third World; threat of biotechnology; biological control of pests; indigenous and natural farming methods that are productive and ecologically sound.

Title: *Science in Agriculture: The Professional's Edge*
Author: Anderson. Arden B.
Publisher: Kansas City, MO: Acres U.S.A., 1992. 370 p.
NAL Number: Q181.A52 1992
Annotation: An overview of the basic sciences farmers need to understand in growing plants, regenerating soil, and providing high quality and nutritious products by curtailing reliance on chemicals. Offers fundamental elements of chemistry, physics, biology, microbiology, testing, planning, programming and management.

Title: *Socio-Economic and Policy Issues for Sustainable Farming Systems*
Editors: Paoletti, M.G. et al
Publisher: Padova, Italy: Cooperativa Amicizia, 1993. 308 p.
NAL Number: HD1415.S63 1993
Annotation: A collection of papers from a symposium, "Agroecology and Conservation Issues in Temperate and Tropical Regions", held in Padova in 1990. Topics include a discussion of the environmental and economic benefits of sustainable agriculture; biodiversity in agroecosystems; farmer-university participation in sustainable agriculture; intensifying agriculture and protecting the environment in the tropics; implementing sustainable agriculture in developing countries; managing water pollution and soil erosion; research policy on agroecology and the environment; animal husbandry, foraging and the Alpine environment; crop patterns and social tension in India; conversion to low-external-input farming in western Germany.

Title: *Soil Biota, Nutrient Cycling, and Farming Systems*
Editors: Paoletti, M.G.; W. Foissner; D. Coleman
Publisher: Boca Raton, FL: Lewis Publishers, 1993. 314 p.
NAL Number: S589.7.S635 1993
Annotation: Several contributors have provided articles dealing with the influence of microorganisms, invertebrates and plants on agroecosystems. Considers the interaction of biota, soil conditions and pesticide residue; organic matter management; recycling of bio-organic waste; the rate of plant pathogen survival in compost; monitoring soil contaminants for environmental and human health problems; agroforestry systems; weed reduction.

Title: *Sustainable Agriculture and Suburban Markets: What's the Connection?*
Author: Kitasei, Hilary Hinds
Publisher: Briarcliff Manor, NY: The League of Women Voters of Briarcliff, Ossining, Croton and Cortlandt, 1992. 36 p.
NAL Number: HD9005.K57 1992
Annotation: A booklet that describes results of a consumer survey in upstate New York of how customers select fruits and vegetables in supermarkets. Half the respondents regarded pesticide-free produce as a major consideration. Includes consumers' thoughts about quality and sources of produce; opinions about organic produce, price and availability. Discusses alternative marketing systems such as farmers' markets, buying clubs, cooperatives, "pick your own" farms. Discusses strategies for encouraging sustainable agriculture.

Inquiries may be made to the League of Women Voters of Briarcliff, Ossining, Croton and Cortlandt, P.O. Box 30, Briarcliff Manor, NY 10510.

Title: *Sustainable Agriculture and the Environment in the Humid Tropics*
Author: Committee on Sustainable Agriculture and the Environment in the Humid Tropics, Board on Agriculture and Board on Science and Technology for International Development, National Research Council
Publisher: Washington, DC: National Academy Press, 1993. 702 p.
NAL Number: S481.N38 1992

Annotation: Focuses on the loss of rain forests and other environmental resources in tropical countries. Offers ideas for mitigating land degradation and deforestation; promoting food production and economic growth; protecting resources; changing adverse policies. Provides observations on Brazil, Mexico, Indonesia, Malaysia, Philippines, Ivory Coast, and Zaire.

Title: *Sustainable Agriculture Development in Asia*
Publisher: Tokyo: Asian Productivity Organization (APO), 1994. 488 p.
NAL Number: S494.5.S86S972 1994
Annotation: Report of an APO study meeting held in Tokyo on Feb. 23 - March 5, 1994. Discusses issues and experiences pertaining to sustainable agriculture development and programs that contribute to environment sensitive techniques and sustainable production systems. Papers include sustainable agriculture in Asian developing countries from an economist's perspective; changes in agrarian structure; development and transfer of environment technology; sustainable agriculture and the alleviation of poverty; sustainable animal production in integrated small farm systems; prospects for sustainable agriculture in Asia. Conditions for sustainable agriculture are described individually for Taiwan, Hong Kong, India, Indonesia, Iran, South Korea, Malaysia, Mongolia, Nepal, Philippines, Sri Lanka, and Thailand.

Title: *Sustainable Agriculture for the Asian and Pacific Region*
Editor: Bay-Petersen, Jan
Publisher: Taipei, Taiwan: Food and Fertilizer Technology Center for the Asian and Pacific Region (FFTC), 1992. 96 p.
NAL Number: SB177.A75F47 no.44
Annotation: No. 44 in FFTC's book series. Includes papers presented at the 11th meeting of the Center's Technical Advisory Committee held on May 18-24, 1992, at Suweon, South Korea. Focuses on the special characteristics and requirements necessary for the development of sustainable systems in tropical areas. Organic farming is less suitable in the humid tropics because of the rapid breakdown of organic matter and the formidable buildup of pests and pathogens that make disease and pest control more difficult. Deals with the concept of sustainable agriculture; soil management using organic matter with or without chemical fertilizers; developing tropical highlands for agriculture with an emphasis on agroforestry; using biological resources and biotechnology; methods of sustainable agriculture developed in Taiwan that include using natural pesticides such as chili extract.

Title: *Sustainable Agriculture in Egypt*
Editors: Faris, Mohamed and Mahmood Hasan Khan
Publisher: Boulder, CO: Lynne Rienner Publishers, 1993. 273 p.
NAL Number: S473.E38S88 1993
Annotation: Papers from a conference on the sustainability of Egyptian agriculture held in Alexandria in May 1992. Focuses on environmental, economic, social, cultural, and political features of sustainable development in Egypt. Considers water resource management and policies; rice production; government agricultural policy; small farmer households, women's rights, population dynamics, and other social factors; the political process in Egypt.

Title: *Sustainable Agriculture in the American Midwest: Lessions from the Past, Prospects for the Future*
Editors: McIsaac, Gregory and William R. Edwards
Publisher: Urbana: University of Illinois Press, 1994. 291 p.
NAL Number: S441.S97 1994
Annotation: Explores the technical, ecological, and social aspects of sustainable agriculture in the Midwest. Contributors are specialists in agronomy, plant biology, soil science, ecology, entomology, geography, climatology, engineering, economics, and anthropology. Addresses the factors and perceptions that often make it difficult to agree on basic elements of sustainability. Includes discussions on the evolution of concepts and definitions of sustainability; contrasting cultural beliefs; the frequent conflict between indigenous agricultural knowledge and technology and resulting social change; resolution of conflicts that arose from land drainage schemes in the lower Illinois River valley between 1890s-1930; the relationship between wildlife and agricultural production in the Midwest; evaluating the natural ecosystem as a standard for sustainability; defining sustainable cropping systems; the interaction among humans, pests and crops, and the evolution of pest control methods; effects of land use and management on soil erosion and long-term production; impact of future climate patterns on sustainable agriculture; alternative energy sources for agriculture.

Title: *Sustainable Agriculture Systems*
Editors: Hatfield, J.L. and D.L. Karlen
Publisher: Boca Raton, FL: Lewis Publishers, 1994. 316 p.
NAL Number: S494.5.S86S86 1994
Annotation: A collection of articles that examines the components within agricultural systems and how these may be incorporated into sustainable systems. Topics include water conservation, irrigation, decreasing evaporation and transpiration, reducing neripercolation, basic soil testing, plant analyses, rotation, cover crops, nutrient enhancement, soil organic matter, tillage methods, weed and pest management. Also provides a historical perspective and a discussion of economic issues, social changes and future challenges.

Title: *Sustainable Development and Sustainable Agriculture: (A Partially Annotated Bibliography With Emphasis on Economics)*
Authors: Rosenberg, Elliot and Ludwig M. Eisgruber
Publisher: Corvallis, OR: Oregon State University, Dept. of Agricultural and Resource Economics, May 1992. Working paper no. 92-101. 228 p.
NAL Number: Z5863.A35R67 1992
Annotation: Another in the Oregon State series, *Working Papers in Economics*. A bibliography of literature dealing with economic aspects of sustainable development and sustainable agriculture. Citations include books and journal articles, published primarily between 1987-1991. Includes subject and author indexes.

Title: *Sustainable Forestry: Philosophy, Science, and Economics*
Author: Maser, Chris
Publisher: Delray Beach, FL: St. Lucie Press, 1994. 373 p.

NAL Number: SD387.S87M375 1994
Annotation: Looks at the ecological characteristics of forests and society's disregard for this natural design in it's emphasis on short-term economic expediency. Examines current practices, such as replacing forests with fast-growing tree plantations, and the changes that must be made to secure sustainable forests and forestry. Maintains that special, local and regional interests must resolve current conflicts and come to view forests as a global concern. Defines the premises and elements of ecosystem management.

Title: *Sustainable Land Use: A Policy for Sustainable Management and Use of Natural Resources in Developing Countries*
Publisher: The Hague, Netherlands: Ministry of Foreign Affairs, Directorate General for International Cooperation, 1993. Sectoral policy document no. 2. 66 p.
NAL Number: HD706.S87 1993
Annotation: Another in a series of publications on sectoral policy issued by the Netherlands Ministry of Foreign Affairs. Briefly reviews Third World agricultural development; causes of soil degradation; effects of agricultural production on the environment. Offers ideas for an integrated approach to management of natural resources; guidelines for sustainable land use; cooperation and aid programs.

Copies are available from the Development Cooperation Information Dept., Ministry of Foreign Affairs, Postbus 20061, 2500 EB The Hague, Netherlands.

Title: *Systems Approaches for Improvement in Agriculture and Resource Management*
Authors: Wilson, Kathleen and George E.B. Morren Jr.
Publisher: New York: Macmillan Publishing Co., 1990. 361 p.
NAL Number: S540.A2W54
Annotation: Written for students in the agricultural, food, and natural resources sciences as part of a project to create new college-level curricula. Deals with decision making and problem solving in changing environments required of managers in agricultural, food, and related enterprises. Discusses the processes of learning and the various methods of inquiry.

Title: *Taxing Pesticides to Fund Research for Sustainable Agriculture: The Iowa Model*
Publisher: Washington, DC: Americans for Safe Food, Center for Science in the Public Interest, 1990. 75 p.
NAL Number: HJ5347.I8T39 1990
Annotation: A look at 1987 Iowa legislation that imposed a tax on pesticides and nitrogen fertilizers as a means for funding programs and research to help reverse the effects of pesticide use and
reduce reliance on synthetic chemicals.

Available for purchase from Americans for Safe Food, 1875 Connecticut Ave., NW, Suite 300, Washington, DC 20009-5728.

Title: *Technologies for Sustainable Agriculture in the Tropics*
Editors: Ragland, John and Rattan Lal
Publisher: Madison, WI: American Society of Agronomy (ASA); Crop Science Society of America; Soil Science Society of America, 1993. ASA special publication no. 56. 313 p.
NAL Number: 64.9.Am3 no.56
Annotation: Proceedings of two ASA symposia held in San Antonio in 1990 and Denver in 1991. Examines the constraints, challenges and choices facing sustainable agriculture in developing countries. Stresses that the success of sustainability in these countries depends on the ability to produce substantial wealth. Other topics include linking modern technologies to indigenous farming practices to achieve productive sustainable systems; sustainable development of sloping uplands in southeast Asia and methods for reversing land degradation; agroforestry, nutrient cycling and alley cropping; using Vetiver grass to control soil erosion; employing computer models to aid in decision making; socio-economic considerations, such as economic and policy influences on sustainability and farmer participation in research. Focuses on the problems and strategies for sustainable agriculture in sub-Saharan Africa.

Title: *Technology Policy for Sustainable Agricultural Growth*
Publisher: Washington, DC: International Food Policy Research Institute (IFPRI), October 1990. Policy brief no. 7. 36 p.
NAL Number: HD9000.A1I47
Annotation: Briefs presented at a seminar held in The Hague, Netherlands, July 2 and 3, 1990. Discusses the roles of research, investment and economic policies in encouraging the development and use of infrastructure, irrigation, fertilizers, and improved seed varieties.

Title: *The World's Savannas: Economic Driving Forces, Ecological Constraints and Policy Options for Sustainable Land Use*
Editors: Young, M.D. and O.T. Solbrig
Publisher: New York: The Parthenon Publishing Group; Paris: UNESCO, 1993. 350 p.
NAL Number: GF75.M35 v.12
Annotation: Volume 12 in *Man and the Biosphere* series. Assesses ecological, social and economic constraints and recommends national and international policy changes necessary for sustainable development of tropical savannas. Focuses on Africa, India, Australia, Venezuela, and Brazil in dealing with types of land tenure, grazing systems, and other factors that influence savanna land use.

Title: *Your Organic Garden: With Jeff Cox*
Editors: Editors of Rodale Garden Books
Publisher: Emmaus, PA: Rodale Press, 1994. 344 p.
NAL Number: SB453.5.C68 1994
Annotation: The title is taken from Mr. Cox's PBS television series. Provides advice on growing a healthy, chemical-free garden. Contains information on composting and soil care; choosing the right plants; seed and plant propagation; growing guides for fruits, vegetables, and flowers; controlling pests and diseases.

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If the needed publications are not available from these sources, submit requests to NAL with a statement indicating their non-availability. Submit one request per page following the instructions for libraries below.

NAL's Document Delivery Service Information for the Library

The following information is provided to assist your librarian in obtaining the required materials.

Loan Service — Materials in NAL's collection are loaned only to other U.S. libraries. Requests for loans are made through local public, academic, or special libraries.

The following materials are not available for loan: serials (except USDA serials); rare, reference, and reserve books; microforms; and proceedings of conferences or symposia. Photocopy or microform of non-circulating publications may be purchased as described below.

Document Delivery Service — Photocopies of articles are available for a fee. Make requests through local public, academic, or special libraries. The library will submit a separate interlibrary loan form for each article or item requested. If the citation is from an NAL database (CAIN/AGRICOLA, *Bibliography of Agriculture*, or the NAL Catalog) and the call number is given, put that call number in the proper block on the request form. Willingness to pay charges must be indicated on the form. Include compliance with copyright law or a statement that the article is for "research purposes only" on the interlibrary loan form or letter. Requests cannot be processed without these statements.

Charges:

- Photocopy, hard copy of microfilm and microfiche – $5.00 for the first 10 pages or fraction copied from a single article or publication. $3.00 for each additional 10 pages or fraction.
- Duplication of NAL-owned microfilm – $10.00 per reel.
- Duplication of NAL-owned microfiche – $ 5.00 for the first fiche and $ .50 for each additional fiche per title.

Billing – Charges include postage and handling, and are subject to change. Invoices are issued quarterly by the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161. Establishing a deposit account with NTIS is encouraged. *DO NOT SEND PREPAYMENT.*

Send Requests to:

USDA, National Agricultural Library
Document Delivery Services Branch,PhotoLab
10301 Baltimore Blvd., NAL Bldg.
Beltsville, Maryland 20705-2351

Contact the Head, Document Delivery Services Branch in writing or by calling (301) 504-5755 with questions or comments about this policy.

ELECTRONIC MAIL ACCESS FOR INTERLIBRARY LOAN (ILL) REQUESTS

The National Agricultural Library (NAL), Document Delivery Services Branch accepts ILL requests from libraries via several electronic services. All requests must comply with established routing and referral policies and procedures. The transmitting library will pay all fees incurred during the creation of requests and communication with NAL. A sample format for ILL requests is printed below along with a list of the required data/format elements.

ELECTRONIC MAIL - (Sample form below)

SYSTEM	ADDRESS CODE
INTERNET	LENDING@NALUSDA.GOV
EASYLINK	62031265
ONTYME	NAL/LB
TWX/TELEX	Number is 710-828-0506 NAL LEND. This number may only be used for ILL requests.
FTS2000	A12NALLEND
OCLC	NAL's symbol AGL need only be entered once, but it must be the last entry in the Lender string. Requests from USDA and Federal libraries may contain AGL anywhere in the Lender String.

SAMPLE ELECTRONIC MAIL REQUEST

AG University/NAL ILLRQ 231 4/1/93 NEED BY: 6/1/93

Interlibrary Loan Department
Agriculture University
Heartland, IA 56789

Dr. Smith Faculty Ag School

Canadian Journal of Soil Science 1988 v 68(1): 17-27
DeJong, R. Comparison of two soil-water models under semi-arid growing conditions
Ver: AGRICOLA
Remarks: Not available at IU or in region.
NAL CA: 56.8 C162

Auth: C. Johnson CCL Maxcost: $15.00

MORE

TELEFACSIMILE - Telephone number is 301-504-5675. NAL accepts ILL requests via telefacsimile. Requests should be created on standard ILL forms and then faxed to NAL. NAL does not fill requests via Fax at this time.

REQUIRED DATA ELEMENTS/FORMAT

1. Borrower's address must be in block format with at least two blank lines above and below so form may be used in window envelopes.
2. Provide complete citation including verification, etc.
3. Provide authorizing official's name (request will be rejected if not included).
4. Include statement of copyright compliance if applicable.
5. Indicate willingness to pay applicable charges.
6. Include NAL call number if available.

Contact the Document Delivery Services Branch at (301) 504-6503 if additional information is required.

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